

# CTB Rail and Transit Subcommittee

March 15, 2022

Department of Rail and Public Transportation



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# Director's Update

## CTB Rail & Transit Subcommittee

Jennifer Mitchell, Director  
Department of Rail and Public Transportation



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# **CSX Freight Update**

## **CTB Rail & Transit Subcommittee**

**Randy Marcus, Director State Relations**  
**CSX Transportation**





Making Efficient • Responsible Investments In Transit

# Transit Capital Application Update

CTB Rail and Transit Subcommittee – March 15, 2022

Jennifer DeBruhl

Chief of Public Transportation



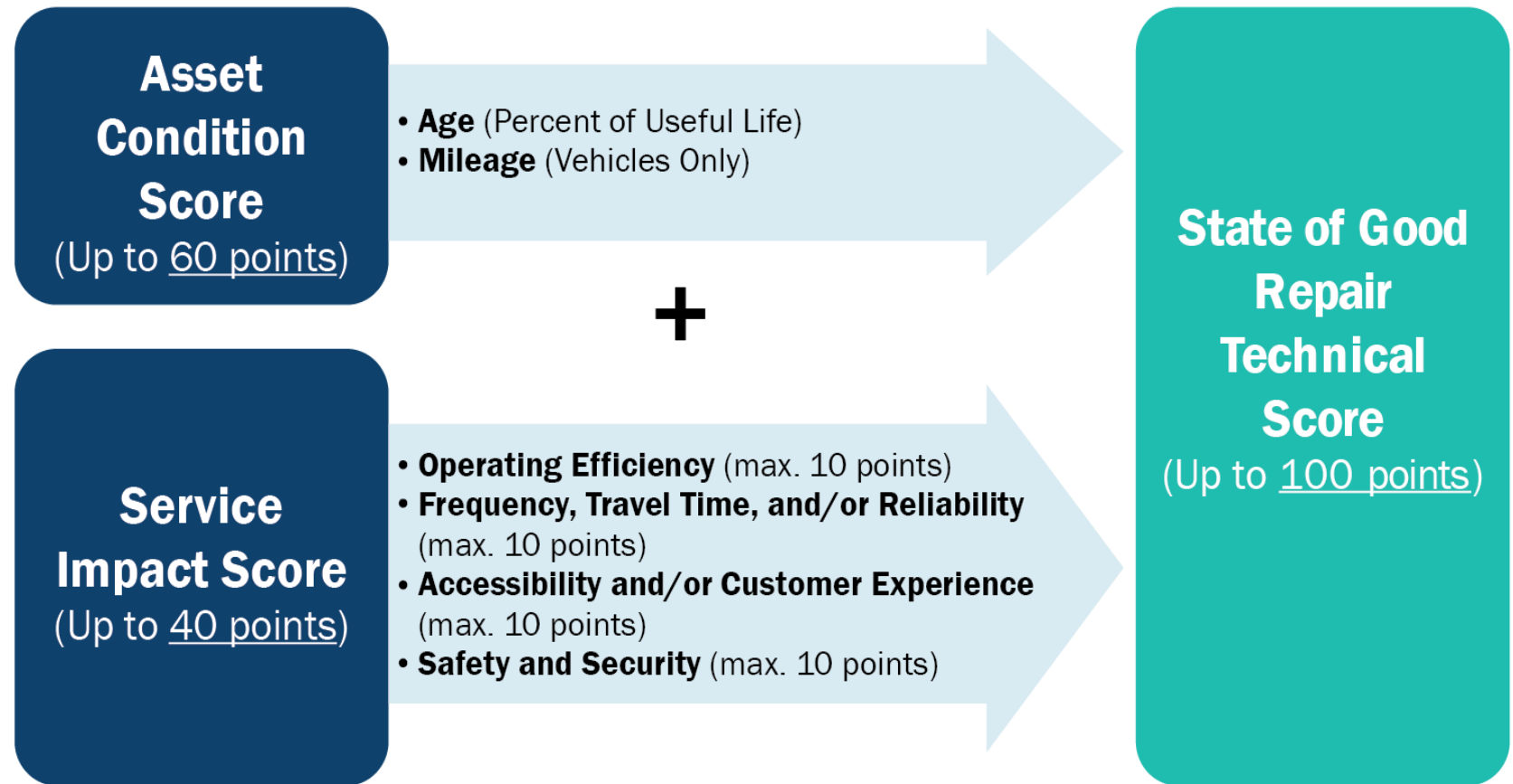
# Statewide Transit Capital Prioritization

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- **Effective July 1, 2019**
- **State of Good Repair**
  - » *Based on transit asset management principles, including federal requirements for Transit Asset Management*
- **Minor Enhancement**
  - » *Based on service impact factors*
- **Major Expansion**
  - » *Based on SMART SCALE factors:*
    - Congestion mitigation
    - Economic development
    - Accessibility
    - Safety
    - Environmental quality
    - Land use

# Scoring Methodology

## State of Good Repair Projects



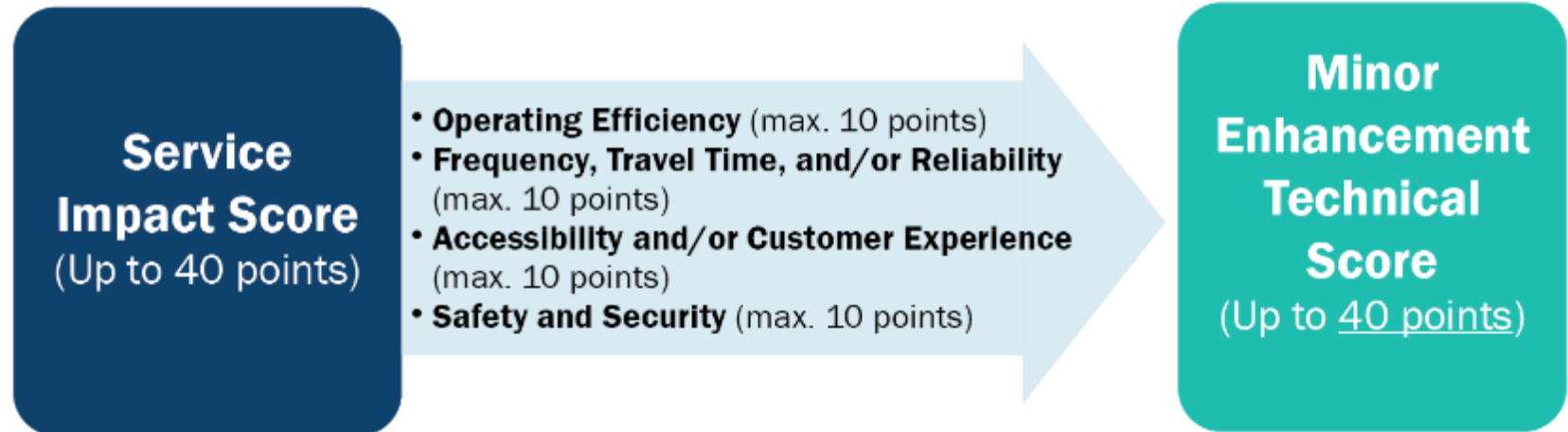
# State of Good Repair Scoring

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- **321 Line items scored**
- **Scores range from a high of 96 to a low of 15**
- **Items recommended for funding:**
  - » *Primarily vehicle replacements and rehabilitations*
  - » *Hardware and Software replacements (items past their useful life)*
  - » *Limited number of technology, facility, and bus stop improvements*
- **Major policy items:**
  - » *Recommendation to fund vehicle replacements at 75-85% of useful life (earlier than typical 95%) due to continuing supply chain and fulfillment delays*

# Scoring Methodology: Minor Enhancement Projects

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# Minor Enhancement Scoring

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- **119 Line items scored**
- **Scores range from a high of 38 to a low of 8**
- **Items recommended for funding:**
  - » *Expansion vehicles*
  - » *Maintenance equipment/parts, and facility improvements and renovations*
  - » *Customer facility improvements, including bus stops/ shelters*
  - » *Operational, communications, and safety technology*
  - » *Hardware and software for operations support*
- **Major Policy Items:**
  - » *None*

# Major Expansion Projects – Measures by Factor Area

Factor	Measure	Measure Weight
Congestion Mitigation	Change in peak-period transit system ridership attributed to the project	100%
Economic Development	Project consistency with regional and local economic development plans and policies, and support for local development activity	100%
Accessibility	Project improvement in accessibility to jobs and select non-work destinations	50%
	Disadvantaged population (low-income, minority, or limited English proficiency) within walking distance of project	50%
Safety	Project contribution to improving safety and security, reducing risk of fatalities or injuries	100%
Environmental Quality	Reduction in daily vehicle miles traveled resulting from project	100%
Land Use	Transit supportive land use served by the project	100%

# Major Expansion Scoring

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- **2 Major Expansion Projects scored**
- **Project MERIT Scores:**
  - » *Crystal City VRE Station Relocation - 182.8*
  - » *VRE Rolling Stock - 107.1*
- **2 applications deemed not ready – recommended to transition to Minor Enhancement to support engineering and design work**
  - » *Charlottesville Area Transit – Administration Building Addition*
  - » *Charlottesville Area Transit – Operating Annex Renovation/ Addition*



Making Efficient • Responsible Investments In Transit

# Transit Capital Application Update

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Chief of Public Transportation



# Rail Industrial Access – Mondelez International

CTB Workshop – March 15, 2022

Michael Todd, Director of Rail Programs  
Department of Rail and Public Transportation

# Introduction

## Mondelez International



## Bakery



## Processing Materials





# Location





# Site Details





# Application Details

## Budget

**Total \$55M**

**Rail \$4M**

**Request \$450K**

**Score 20**

# Application Details

Budget	Carloads
<b>Total \$55M</b>	<b>Existing 859</b>
<b>Rail \$4M</b>	<b>New 1,030</b>
<b>Request \$450K</b>	<b>Score 20</b>
<b>Score 20</b>	

# Application Details


Budget	Carloads	Employment
<b>Total \$55M</b>	<b>Existing 859</b>	<b>Jobs 140</b>
<b>Rail \$4M</b>	<b>New 1,030</b>	<b>Score 20</b>
<b>Request \$450K</b>	<b>Score 20</b>	
<b>Score 20</b>		

# Application Details

Budget	Carloads	Employment	Score
<b>Total \$55M</b>	<b>Existing 859</b>	<b>Jobs 140</b>	<b>Budget 20</b>
<b>Rail \$4M</b>	<b>New 1,030</b>	<b>Score 20</b>	<b>Carloads 20</b>
<b>Request \$450K</b>	<b>Score 20</b>		<b>Jobs 20</b>
<b>Score 20</b>			<b>Local EDA 10</b>
			<b><u>Total 70</u></b>

# Annual Project Benefits

Measure	Savings
Safety	\$1.8M
Congestion	\$100k
Pavement Maintenance	\$60k
Emissions	\$50k
Total Savings: Over \$2M	



Total GHG Reduction:  
2,800 Tons



# Recommendation





# **VIRGINIA**

STATEWIDE RAIL PLAN

# **2022**

## **CTB Rail & Transit Subcommittee Update**

March 15, 2022

# Digital Statewide Rail Plan: StoryMaps

## GIS-Powered Story Telling

### Multimedia App

- Interactive maps + strong visuals + narrative

### Provides informative and engaging content to stakeholders

- Illustrates spatial relationships
- Adds visual appeal and credibility to ideas



ArcGIS StoryMaps

Storytelling that resonates

Transform your digital storytelling with custom maps.



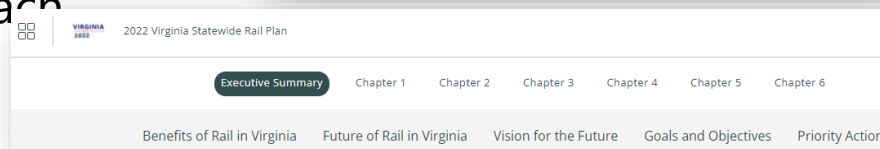
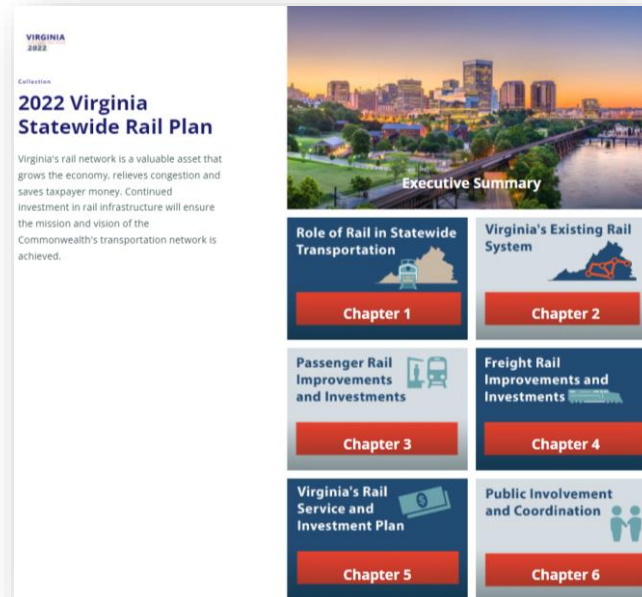
# StoryMap Development

## Centralized Webpage

- Sections linked on a main landing page

## Navigate sections seamlessly

- Global navigation in header throughout StoryMap
- Subsections hyperlinked in each chapter



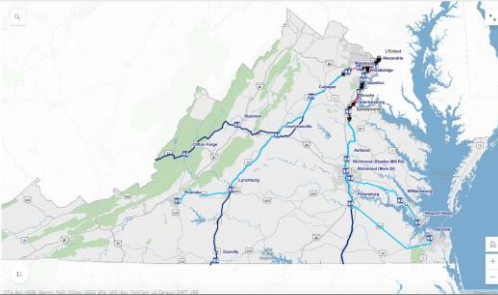
# StoryMap Development

## Dynamic maps and dashboards

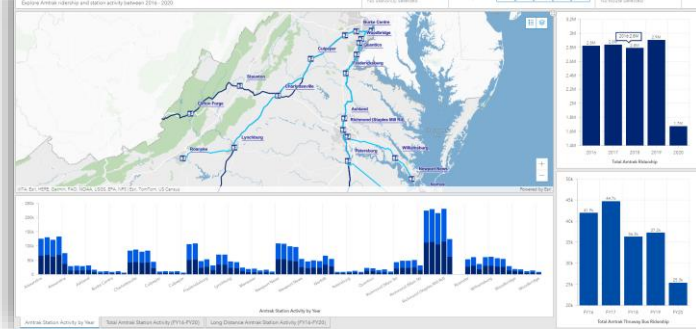
Note: Sample content

### Virginia Regional Passenger Rail on Shared-Use Corridors

For DRPT, improving Virginia regional passenger rail services is not simply a matter of paying for train equipment and operating expenses. All intercity passenger rail services in Virginia operate on rail lines owned by freight railroads, and many of these routes are busy freight railroad corridors with little to no excess capacity. DRPT's approach has been to secure capacity on freight rail lines for future passenger service expansion. The agency has established a track record of success through its partnerships with host freight railroads to expand or introduce intercity passenger rail service on major freight rail corridors, balancing freight and economic development needs with the improved mobility, transportation, and environmental benefits offered by passenger rail. Support for conventional intercity passenger rail projects advances DRPT's

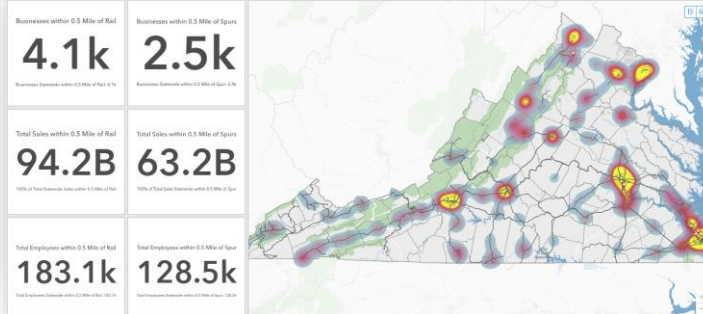


### Amtrak Performance Metrics Dashboard

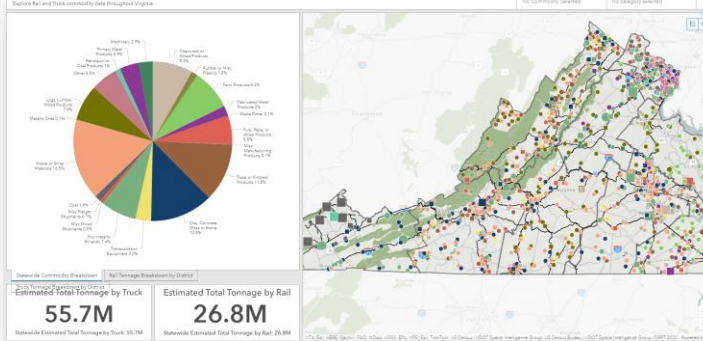


### Dashboard: Data Axel Review (0.5 Mile)

Map displaying filtered businesses within 0.5 mile of operating rail and existing rail spurs

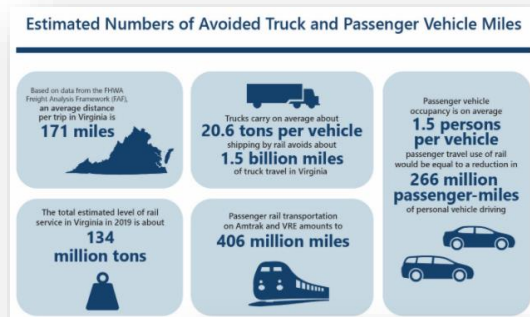


### Commodity Tonnage Dashboard

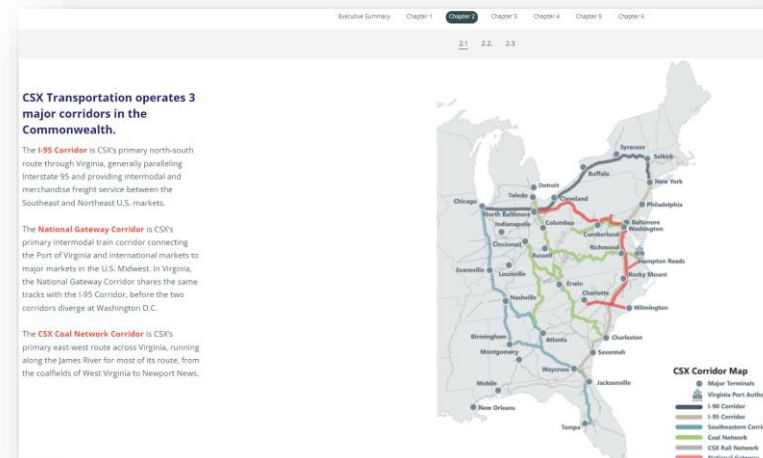


# StoryMap Development

## Incorporates branded graphics and tabular data



Benefit Value Measures	Total Freight Service Benefits	Total Freight Service Benefits
	<i>Millions of 2020 \$</i>	
VMT Avoided within VA Due to Use of Rail (in Millions)	1,452.8	266.1
User Cost Savings	\$1,506.4	\$45.81
Pavement Savings	\$84.9	\$0.3
Congestion Savings	\$231.3	\$64.5
Auto and Truck Emissions	\$162.7	\$3.6
Auto and Truck Crash Reduction	\$65.1	\$19.2
<b>Total (millions)</b>	<b>\$2,050.3</b>	<b>\$133.4</b>



Note: Sample content

# Policy Review

- Economic Development Policy
- Equipment Policy
- Coordination Policy
- Corridor Development Policy
- Multimodal Access Policy
- Station Policy
- Service Policy
- Equity Policy
- Climate Change Policy

## Equipment Policy

### EXISTING CONDITIONS

Over the years, DRPT has explored the potential for powering passenger trains by electricity. DRPT's policy has been to improve existing infrastructure and right-of-way to the extent possible to manage cost and minimize environmental impacts that occur from additional ROW acquisition. As DRPT acquires ROW for passenger rail through the Transforming Rail in Virginia Initiative, the Commonwealth has committed to maintaining interoperability with freight railroads, which are not amenable to electrification. DRPT instead has elected to work with Amtrak to procure more fuel-efficient dual-mode locomotives that would provide environmental benefits combined with the existing fleet through substantially-reduced emissions and fuel efficiency. Dual-mode locomotives also achieve a stated agency goal of reducing or eliminating the dwell time at Washington Union Station for trains requiring locomotive changes to operate on the Northeast Corridor. DRPT continues to monitor technological advancements in the rail industry that could enable electrification without contiguous overhead catenary. If such technology becomes feasible and cost efficient, DRPT, the CTB, and the VPIRA may decide to work with service providers on system-wide passenger train electrification.

### SUPPORTING DOCUMENTS

- 2021 "Electrification of Rail-March 2021" White Paper response to CTB member Carlos Brown
- 2019 DC2HVA Basis of Design (Appendix B of DEIS)
- 2002 SEHSR Tier I EIS
- 2017 Raleigh to Richmond Tier II EIS
- 2009 Letter to Amtrak CEO Joseph Boardman from CSX
- 2006 3rd Track Feasibility Study—DC to Richmond
- 2002 SEHSR Tier I EIS—DC to Charlotte, Chapter 2

### IMPETUS FOR CHANGE

Transforming Rail in Virginia and the resulting definitive agreements and land transfer from CSX to VPIRA gives the Commonwealth a better understanding of the conditions required for electrification of the RFAF corridor. As VPIRA works with VRE to implement a denser schedule of bi-directional commuter service between Spotsylvania, Broad Run and D.C., electrification may be a necessary component to achieve the desired service plan with limited track infrastructure. Statewide, the VRE corridors where electrification is most likely to be needed in the long-term. Without a clearly-defined policy to address future implementation of electrification, DRPT will not be able to make informed infrastructure spending tradeoff decisions. Additionally, future desire for Amtrak's Acela service to terminate in Alexandria may prompt these discussions.

### FEEDBACK

Carlos Brown, CTB member, inquired about DRPT's existing and planned policies on propulsion modes in the context of potential future greenhouse gas emissions requirements for transportation in VA. Additionally, members of the public and informed interest group stakeholders will comment on various studies with the request for DRPT to elect passenger rail corridors.

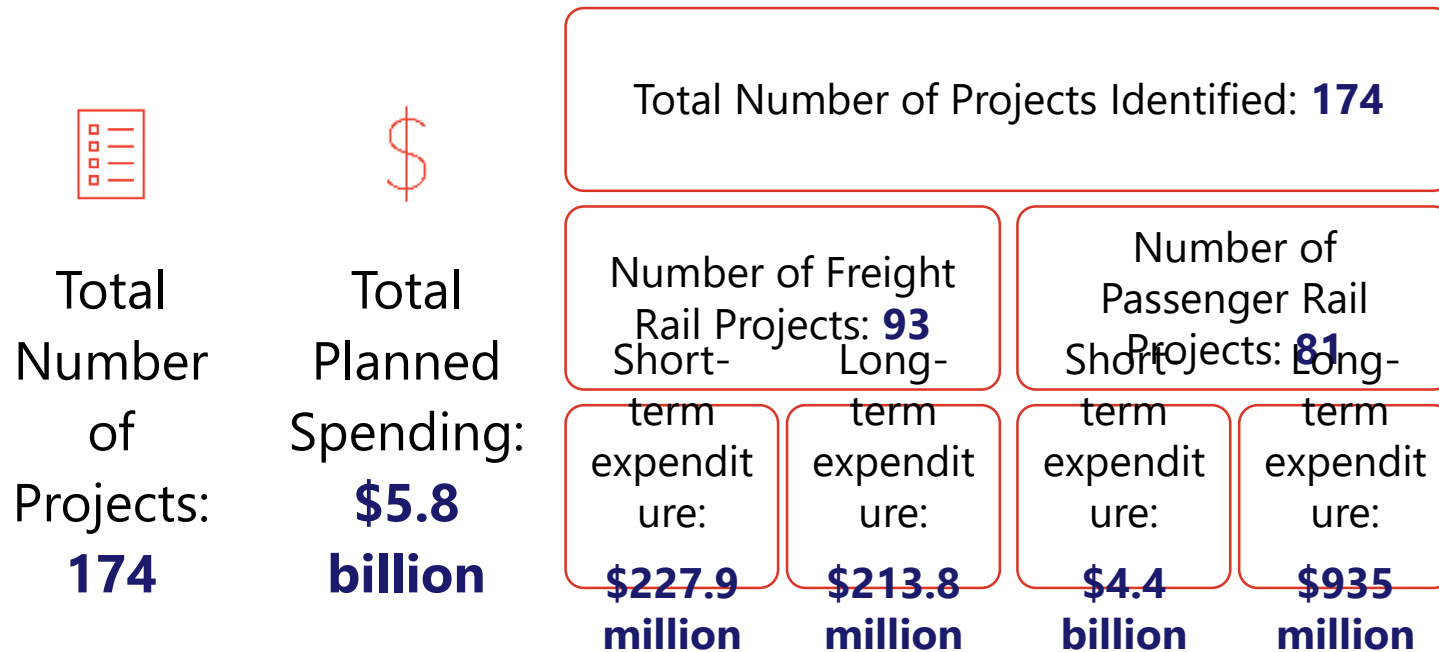
### PROPOSED CHANGES/INTENDED DIRECTION

At this stage, any propulsion mode policy should be established on a corridor-specific basis and should take into consideration:

1. the existing railroad agreements in place (i.e. Transforming Rail in Virginia);
2. availability of ROW and environmental impact tradeoffs;
3. desired level of service (i.e. OTP, run time, rolling stock, etc.), and density of service schedule envisioned; and,
4. availability of emerging technologies to achieve transition from fossil fuel propulsion to electric without the use of contiguous catenary corridors.

Absent a corridor-specific policy, DRPT should continue to apply the general policy of supporting service providers' acquisition of higher-efficiency fossil fuel locomotives on a statewide basis.

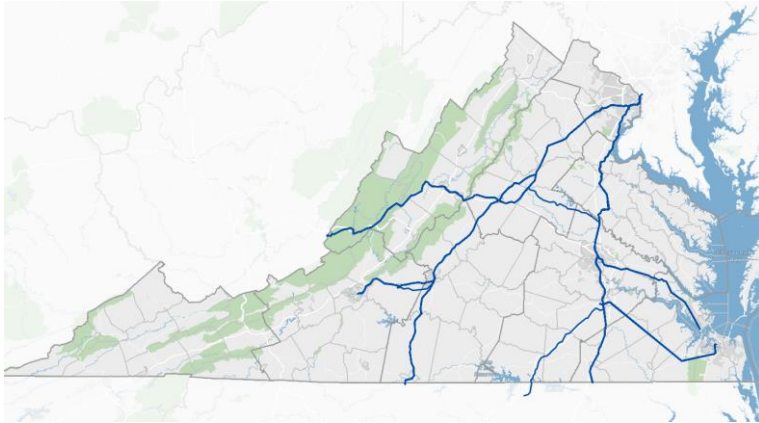
# Project Identification



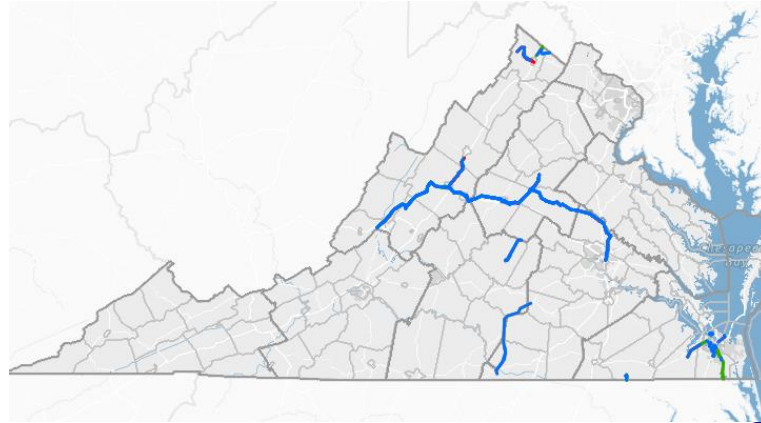
Sources: Six-Year Improvement Program (SYIP), Transforming Rail in Virginia Projects, Short-Line Freight Projects (Rail Lines), Long Range Investment Program

# Project Identification

Location of Passenger Rail Projects



Location of Freight Rail Projects



*Sources: Six-Year Improvement Program (SYIP), Transforming Rail in Virginia Projects, Short-Line Freight Projects (Rail Lines), Long Range Investment Program*

Note: Draft content

# Impact of Identified Projects

Using the Benefit-Cost Analysis (BCA) and Economic Impact Analysis (EIA), the proposed projects are evaluated to understand their societal and economic impacts on Virginia.

## BCA Metrics



Travel  
Time  
Savings



Vehicle  
Diversion  
Benefits



Environme  
ntal  
Benefits



Reduced  
Maintena  
nce Costs

## EIA Impacts



Number  
of Jobs  
Generated



Gross  
Domestic  
Product  
Impact



Labor  
Income  
Impact



## SDP Structure

1. Passenger Rail in Virginia
2. Framework for Passenger Rail Planning
3. Short-Range and Mid-Range Investments and Improvements
4. Long-Range Investments and Improvements with Federal Actions
5. Additional Corridors/Improvements for Long-Range Study and Development



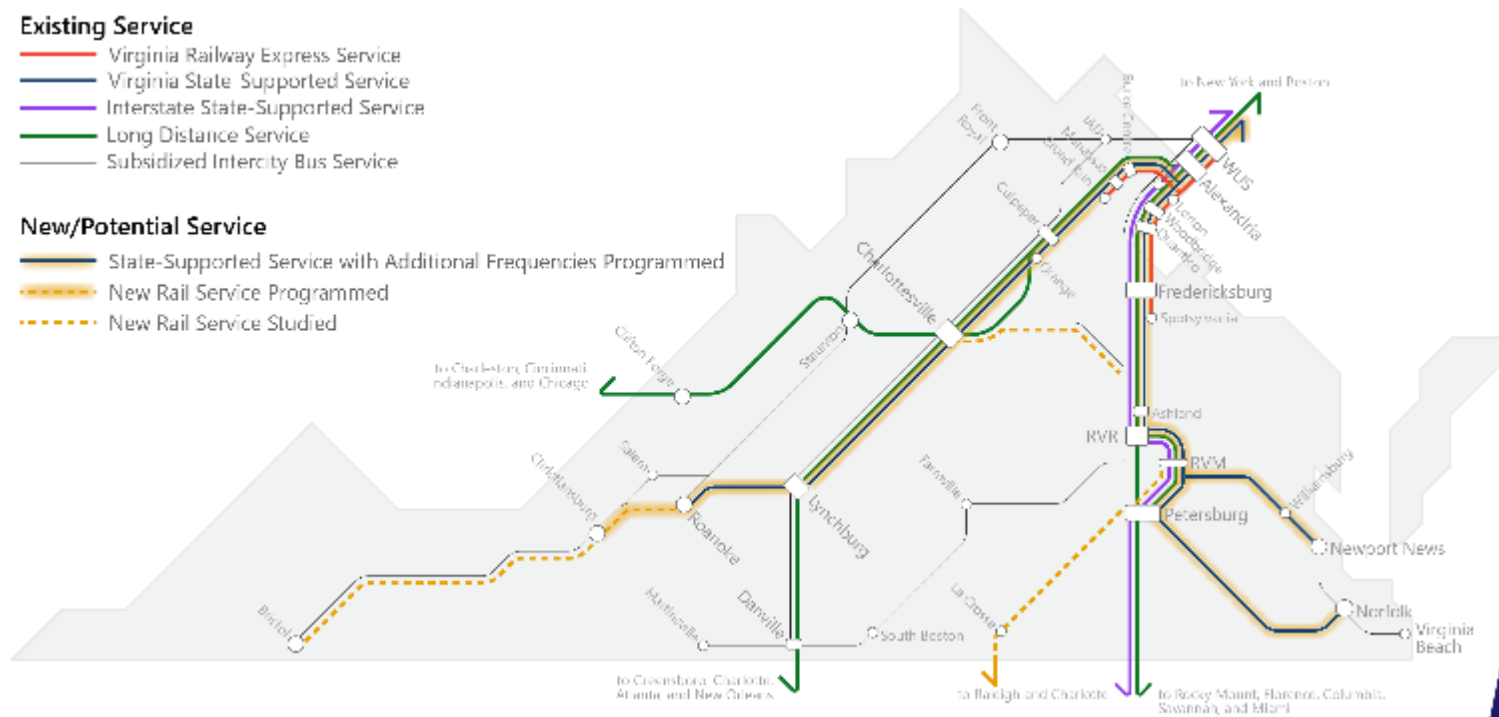
# Programmed Improvements & Studies

## Existing Service

- Virginia Railway Express Service
- Virginia State-Supported Service
- Interstate State-Supported Service
- Long Distance Service
- Subsidized Intercity Bus Service

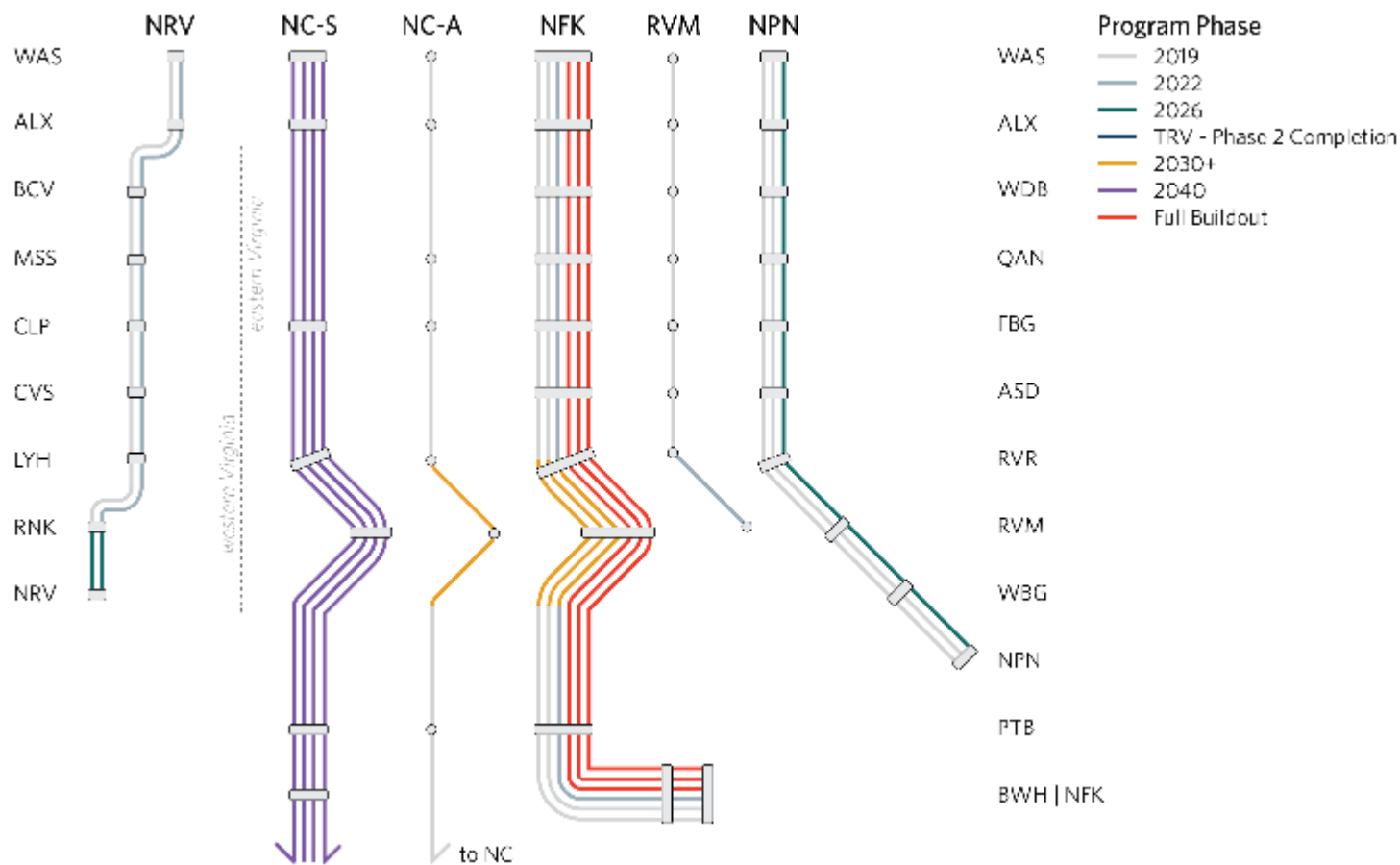
## New/Potential Service

- State-Supported Service with Additional Frequencies Programmed
- - - New Rail Service Programmed
- - - New Rail Service Studied



Note: Draft content

# SEHSR Full Build Out DC2RVA + R2R + R2HR





# **VIRGINIA**

STATEWIDE RAIL PLAN

# **2022**

# **Thank You**

Emily Stock, Chief of Rail Transportation

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# Public Comment

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Department of Rail and Public Transportation

